

REMARKS

Reconsideration of the above identified application in view of the preceding amendments and following remarks is respectfully requested. Claims 27-66 are pending in this application. By this Amendment, Applicants have amended Claims 27 and 51. The claim amendments were made to more precisely define the invention in accordance with 35 U.S.C. 112, paragraph 2. These amendments have not been necessitated by the need to distinguish the present invention from any prior art. It is respectfully submitted that no new matter has been introduced by these amendments, as support therefor is found throughout the specification and drawings.

In the Office Action, Claims 27-41, 44, 45 and 47-66 were rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,522,319 to Yamazaki. The Examiner's grounds for rejection are herewith traversed, and reconsideration is respectfully requested.

Yamazaki discloses an electro-optical apparatus where part of a display screen is in a display state while the other part is necessarily in a non-display state. As a result, only a portion of the liquid crystal display (LCD) panel is utilized and, thus, power consumption is relatively reduced. The apparatus of Yamazaki includes a simple-matrix LCD panel 1. The LCD panel 1 has 200 lines or scanning electrodes. In Yamazaki, the relationship among the frame (T_{frm}), one horizontal period (H), and the number of selected lines (n) is $T_{\text{frm}} = n \times H$ (according to Figure 3, $T_{\text{frm}} = 200H$). Each frame period is divided into multiple periods (e.g., four periods in Figure 3). Signals are written to 10 lines during the first 10 H of each period, which is then followed by a 40 H quiescent period. Thus, the total time to write signals is 40 H . Signals are written to 40 lines. The total rest time is 160 H and no signals are written to 160 lines. These numbers

shown that signals are written to only a part of the screen. In other words, defining $T_{\text{frm}} = n \times H$ and providing quiescent periods in a T_{frm} inevitably results in some of the lines remaining unselected. As a result, a part of the screen is in a non-display state, which makes it impossible to produce a display across the entire screen.

In contrast, Claim 27 recites a method of driving a display device which displays by selecting and scanning each scanning signal line of a screen having pixels arranged in a matrix form and supplying through a data signal line a data signal to a corresponding pixel of the scanning signal line as selected, the method including the step of setting a quiescent period, in which all the scanning signal lines are set in non-scanning state, to be longer than a scanning period required for scanning the screen one time, wherein a sum of the scanning period and the quiescent period is set to be equivalent to one. Consequently, the whole screen is utilized to produce the display but power consumption can still be advantageously reduced by insertion of a quiescent period as defined. Yamazaki does not disclose or suggest such a structural configuration because the disclosure of Yamazaki cannot possibly produce a display across the entire screen. Accordingly, Claim 27 and each of the remaining claims depending therefrom distinguish the subject invention from Yamazaki.

With respect to Claim 29, Yamazaki discloses writing voltages equal to or lower than the OFF-voltage to the LCD panel 1 for pixels in the non-display region in at least one-frame period (1F), i.e., writing the OFF-voltage to pixels 116 in the first frame period (see col. 38, lines 65-68 through col. 39, line 5). In contrast, Claim 29, recites the method of Claim 28 satisfying the condition of:

$$(T1 + T02) = (T1 + T01) \times N \text{ (N is an integer of not less than 2),}$$

wherein T1 is the scanning period, T01 is the shortest one of the plurality of said non-scanning periods, and T02 is a non-scanning period other than T01. Yamazaki does not disclose or suggest such a configuration where T02 (a non-scanning period) is greater than T1 (the scanning period). Accordingly, Claim 29, for this additional reason, distinguishes over Yamazaki.

With respect to Claim 30, Yamazaki discloses a circuit block that controls the partial display state. A register 14 defines information on whether or not a display state is a partial state and defines information corresponding to the number of lines to be displayed (see col. 21, lines 45-61). In contrast, Claim 30, recites the method of Claim 28 wherein the display device includes image data storage means for storing image data based on which the data signal is produced, and an operation of transferring the image data from said image data storage means is stopped in the quiescent period. Yamazaki does not disclose or suggest such a configuration where all the lines have a non-scanning period in which image data transfer is stopped. Accordingly, Claim 30, for this additional reason, distinguishes over Yamazaki.

With respect to Claims 51, 54, 59, 61, 63 and 64, Yamazaki discloses (see col. 21, lines 45-61). In contrast, each of these claims recites, *inter alia*, a quiescent period set to be longer than a scanning period required for scanning a screen one time and in which all the scanning signal lines are set in non-scanning state while utilizing the entire display area. As a result, the entire display area can be utilized. Yamazaki does not disclose or suggest such a configuration where the entire display area is utilized. Accordingly, Claim 51, 54, 59, 61, 63 and 64, for at least this reason, distinguish over Yamazaki. In view of the above, withdrawal of the rejection under 35 U.S.C. §102(e) is

respectfully requested.

In the Office Action, Claims 42, 43 and 46 were rejected under 35 U.S.C. § 103 (a) over Yamazaki. The Examiner's grounds for rejection are herewith traversed, and reconsideration is respectfully requested.


Regarding Claims 42, 43 and 46, the Examiner stated that that several limitations of the claims are known to those artisans skilled in the prior art. The applicant hereby traverses such statements and requests evidence in support of same in the event that the rejections are maintained. Additionally, for the sake of argument, the Examiner cited Yamazaki alone as a reference with respect to these claims. It is respectfully submitted that Yamazaki in combination with whatever one skilled in the art know does not cure the deficiencies noted above with respect to Claim 27 and, therefore, the claims patentably distinguish over the art of record and an action acknowledging the same is respectfully requested.

Any additional fees or overpayments due as a result of filing the present paper may be applied to Deposit Account No. 04-1105. It is respectfully submitted that all of the claims now remaining in this application, namely Claims 27-66, are in condition for allowance, and such action is earnestly solicited.

If after reviewing this amendment, the Examiner believes that a telephone interview would facilitate the resolution of any remaining matters the undersigned attorney may be contacted at the number set forth herein below.

Respectfully submitted,

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